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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/751,340

Applicant(s)

LOVY ET AL.

Examiner

Jeffrey M. Rutkowski

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 73-112 have been cancelled.

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
Non-initialed and/or non-dated alterations have been made to the oath or declaration [declaration, pages 1 and 2]. See 37 CFR 1.52(c).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-3, 19-21, 37-39 and 55-57** are rejected under 35 U.S.C. 102(e) as being anticipated by Eytchison et al. (US Pg. Pub. 2003/0046437), hereinafter known as Eytchison.

4. For **claims 1, 19, 37 and 55** Eytchison teaches a content abstraction layer for use in home network applications [title]. Eytchison teaches a unified communication interface to a Content Abstraction Program Interface (CAPI), where the CAPI communicates with a device layer through a unified communication interface of a Device Abstraction Layer (DAL) and where the

CAPi abstracts low level device control functions of the plurality of devices into a set of content services which control the content accessible to the plurality of interconnected electronic devices [0013] (transmitting data between dissimilar communication devices, wherein said dissimilar communication devices communicate through a common interface that operates on said dissimilar communication devices in accordance with aspects of said dissimilar communication devices that have been abstracted). Eytchison further teaches a Graphical User Interface (GUI) of a content-centric network may be displayed on a variety of display devices (a storage medium, said storage medium having stored thereon instructions) including a computer, television set or Personal Digital Assistant (PDA) [0034].

5. For **claims 2, 20, 38, and 56** Eytchison teaches everything in **claims 1, 19, 37 and 55 respectively**. Eytchison teaches the devices are connected by a network backbone [0030], the backbone includes Ethernet, Bluetooth or other network backbones [0033] (wherein said dissimilar communication devices form a LAN).

6. For **claims 3, 21, 39 and 57** Eytchison teaches everything in **claims 1, 19, 37 and 55 respectively**. Eytchison teaches the LAN devices **101-105** communicate across a network **100** using their own native communication protocols [0033 and figure 1] (claims 3 and 21: further comprising, prior to said transmitting data, establishing a network connection between said dissimilar communication devices; claims 39 and 57: further comprising, prior to said sharing data, being capable of establishing a network connection between said dissimilar communication devices).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. **Claims 1-5, 8, 17-18, 19-23, 26, 35-36, 37-41, 44, 53-54, 55-59, 62, and 71-72** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell et al. (US Pat 6,853,637), hereinafter known as Norrell, and further in view of Eytchison.

10. For **claims 1, 19, 37 and 55**, Norrell teaches a converged home gateway [title]. Norrell teaches a Local Area Network (LAN) **20** may include devices such as computers, computer peripherals such as printers and modems, copiers, fax machines and Personal Digital Assistants (PDA) [col. 5 lines 7-12 and figure 5]. The devices have internal and/or external adapters **74,76** [figure3] connecting them to a local shared medium [col. 10 lines 40-45] for communicating with other devices and/or a gateway device **100** [col. 10 line 48 and figure 2] (claims 1, 19: transmitting data between dissimilar communication devices, wherein said dissimilar

communication devices communicate through a common interface that operates on said dissimilar communication devices in accordance with aspects of said dissimilar communication devices that have been abstracted; claims 37 and 55: network comprising: dissimilar communication devices capable of sharing data with other dissimilar devices, wherein said dissimilar communication devices communicate through a common interface that operates on said dissimilar communication devices in accordance with aspects of said dissimilar communication devices that have been abstracted). Norrell teaches the adapters **74,76 [figure 3]** include a transceiver **400 [figure 4]** used for communicating with other adapter devices or the multi-port transceiver of the gateway device **100 [col. 10 lines 45-52]**. Norrell further teaches the transceiver **400** includes a scrambler algorithm used in V.34 modems. The code for the implementation of the algorithm exists on common DSP platforms (storage medium) **[col. 11 lines 39-44 and figure 4]** (claim 19: a storage medium, said storage medium having stored thereon instructions). Norrell does not teach the devices are abstracted. Eytchison teaches the device abstraction limitation absent from the teachings of Norrell by disclosing each device is abstracted into an overall content-concentric architecture **[0036]**.

11. It would have been obvious to a person of ordinary skill in the art at the time of the invention to abstract the network devices in Norrell's invention to present an interface to a user where only needed functional information is viewable.

12. For **claims 2, 20, 38, and 56** Norrell and Eytchison teach everything in **claims 1, 19, 37 and 55 respectively**. The teachings from the previous claim **[claim 1]** disclose the communications devices are connected to a LAN (wherein said dissimilar communication devices form a LAN).

13. For **claims 3, 21, 39 and 57** Norrell and Eytchison teach everything in **claims 1, 19, 37 and 55 respectively**. Norrell further teaches the networked devices are connected over a typical wire medium found in a residence or a small business. Where some of the wirings originate at a central node [**col. 10 lines 27-32**]. Also, the transceiver implements the physical layer for communicating with other adapter devices [**col. 10 line 46**] (claims 3 and 21: further comprising, prior to said transmitting data, establishing a network connection between said dissimilar communication devices; claims 39 and 57: further comprising, prior to said sharing data, being capable of establishing a network connection between said dissimilar communication devices).
14. For **claims 4, 22, 40 and 58** Norrell and Eytchison teach everything in **claims 1, 19, 37 and 57 respectively**. Norrell teaches the network adapters **74,76** and the gateway **100** use a layered stack [**figure 3**] (wherein said common interface comprises a layered functional hierarchy having multiple layers).
15. For **claims 5, 23, 41 and 59** Norrell and Eytchison teach everything in **claims 5, 23, 41 and 58 respectively**. Norrell teaches the layered stack containing multiple protocol layers one of the protocol layers is made up of Transmission Control Protocol/ Internet Protocol (TCP/IP) and Internetwork Packet Exchange (IPX) protocols [**figure 2 and col. 4 line 30**] (wherein at least one of said multiple layers comprises a protocol layer, said protocol layer including at least two protocols).
16. For **claims 8, 26, 44 and 62** Norrell and Eytchison teach everything in **claims 4, 22, 40 and 58 respectively**. Norrell teaches the TCP/IP protocol stack is used to transfer data [**col. 8 line 11**] (wherein said data is transmitted between said dissimilar devices through a layer of said layered functional hierarchy).

17. For **claims 17, 35, 53 and 71** Norrell and Eytchison teach everything in **claims 1, 19, 37 and 55 respectively**. Norrell teaches the LAN includes a Personal Computer **540** PC [**figure 5**] (wherein at least one of said dissimilar communications devices includes the capability to perform at least one of the following tasks: access digital data, execute digital data, and transfer digital data).

18. For **claims 18, 36, 54 and 72** Norrell and Eytchison teach everything in **claims 17, 35, 53 and 71**. Norrell teaches the LAN includes a Personal Digital Assistant **550** PDA [**figure 5**] (wherein at least one of said dissimilar communications devices includes the capability to perform at least one of the following tasks: store digital data, transfer digital data, and organize digital data).

19. **Claims 6-7, 24-25, 42-43 and 60-61** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell as modified by Eytchison as applied to **claims 5, 23, 41 and 59** above, and further in view of Simpson-Young et al. (US Pat 7,191,236), hereinafter known as Simpson.

20. For **claims 6, 24, 42 and 60** the combination of Norrell and Eytchison teach the network adapters **74,76** and the gateway **100** use a layered stack [**Norrell, figure 3**]. The combination does not teach the use of messaging or discovery protocols. Simpson teaches the messaging and discovery protocol limitation absent from the teachings of the combination by disclosing Service Location Protocol (miniSLP) [**col. 8 line 64 to col. 9 line 2**] is used as a service discovery protocol and Extensible Markup Language (XML) messaging [**col. 10 line 60**] is used as a communication protocol (wherein said at least two protocols comprise a messaging protocol and a discovery protocol).

21. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use XML messaging in Norrell's invention to ensure a common data representation in requests. It also would have been obvious to a person of ordinary skill in the art at the time of the invention to use miniSLP in Norrell's invention to discover new services available on the network.

22. For **claims 7, 25, 43 and 61** the combination of Norrell, Eytchison and Simpson teach everything in **claims 6, 24, 42 and 60 respectively**. Eytchison further teaches a Device Abstraction Layer (DAL) is used to present a unified communication interface [abstract] (wherein at least one of said multiple layers comprises an abstraction layer including said aspects of said dissimilar communication devices that have been abstracted).

23. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a DAL in Norrell's invention as a common interface for all devices on the network since the functionality of the device is abstracted by the DAL.

24. **Claims 9-10, 27-28, 45-46 and 63-64** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell as modified by Eytchison as applied to **claims 4, 22, 40 and 58 respectively** above, and further in view of Wilkinson et al. (US PgPub 2002/0099867), hereinafter known as Wilkinson.

25. For **claims 9, 27, 45 and 63**, the combination of Norrell and Eytchison teach everything in **claims 4, 22, 40 and 58 respectively**. The combination does not teach an Operating System (OS) layer is part of the layered stack [figure 3]. Wilkinson teaches the OS layer 6 absent from the teachings of the combination by disclosing an OS layer is used in a software architecture

[figure 1 and 0043-0044] (wherein at least one of said layers comprises an operating system layer).

26. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use an OS abstraction layer in Norrell's invention to facilitate an OS independent environment.

27. For **claims 10, 28, 46 and 64**, the combination of Norrell, Eytchison and Wilkinson teach everything in **claims 9, 27, 45 and 63**. Wilkinson further teaches included in the OS layer is an abstraction layer **14** allowing for the use of third party components such as device drivers **18** [0049] (wherein said operating system layer includes the capability to access components of said dissimilar devices).

28. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a device driver in Norrell's invention since device drivers allow an Operating System (OS) to communicate with the network.

29. **Claims 11-13, 29-31, 47-49 and 65-67** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell as modified by Eytchison as applied to **claims 1, 19, 37 and 55** above, and further in view of Li et al. (US Pat 6,789,123), hereinafter known as Li.

30. For **claims 11-13, 29-31, 47-49 and 65-67**, the combination of Norrell and Eytchison teach everything in **claims 1, 19, 37 and 55 respectively**. The combination teaches an infrastructure access device provides a home LAN with access to voice, data and television services [Norrell, abstract]. The combination does not teach the information transferred includes different types of files. Li teaches the differential file transfer limitation absent from the teachings of the combination by disclosing streaming delivery of media content [abstract]

includes media files such as audio files, video files, still images, text captions, etc. [**col. 9 line 34**] (wherein said data comprises at least one file).

31. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use audio and digital files in Norrell's invention to provide video services over TCP/IP.

32. For **claims 12, 30, 48 and 66**, the combination of Norrell, Eytchison and Li teach everything in **claims 11, 29, 47 and 65**. The teachings from **claims 11, 29, 47 and 65** disclose at least one of the files is digital media file (wherein said at least one file comprises a digital media file).

33. For **claims 13, 31, 49 and 67**, the combination of Norrell, Eytchison and Li teach everything in claims **12, 30, 48 and 66**. The teachings from **claims 11, 29, 47 and 65** disclose at least one of the digital files is a digital audio or video file (wherein said digital media file comprises at least one of: a digital video file and a digital audio file).

34. **Claims 14, 32, 50 and 68** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell as modified by Eytchison as applied to **claims 1, 19, 37 and 55** above, and further in view of Chen et al. (US Pg Pub 2001/0030950), hereinafter known as Chen.

35. For **claims 14, 32, 50 and 68** the combination of Norrell and Eytchison teach everything in **claims 1, 19, 37 and 55 respectively**. The combination teaches LAN devices include computers, computer peripherals including printers and modems, fax machines, Personal Digital Assistants (PDA), copiers, fax machines, televisions, audio-visual equipment, appliance thermostats and lighting fixtures [**Norrell, col. 5 lines 6-12**]. The combination does not teach a wireless phone as a LAN device. Chen teaches the wireless phone limitation absent from the

teachings of Norrell by disclosing a wireless phone is connected to a wireless gateway [0073] (wherein said dissimilar communications devices at least include: computing devices, wherein the computing devices may be configured to exchange data by use of differing protocols, digital audio devices, remote control devices, wireless phones, and digital media devices).

36. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include wireless phones in Norrell's invention to facilitate the exchange of information amongst all home devices.

37. **Claims 15, 33, 51 and 69** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell as modified by Eytchison and Chen as applied to **claims 14, 32, 50 and 68** above, and further in view of Prabhu et al. (US Pat 6,298,069), hereinafter known as Prabhu, and Ludtke et al. (US Pat 6,233,611), hereinafter known as Ludtke.

38. The combination of Norrell, Eytchison and Chen does not teach abstraction includes controlling, executing, recording, storing, discovering, and messaging. Ludtke teaches a Device Control Module (DCM) is used to abstract all of the capabilities and requirements of a device [col. 2 lines 17-22]. Prabhu expands on the teaching of Ludtke by disclosing the device may be implemented as television sets, audio reproduction systems, personal computers (storing), digital video disk devices, Video Cassette Recorders (VCR) and set-top boxes for digital recording [col. 4 lines 15-25]. Prabhu further teaches a messaging system [figure 4] which includes a Communication Media Manager 426 (CMM) for managing communications through a device driver onto a network bus [col. 6 line 62]. The DCM managers 416 perform a discovery operation to find the appropriate host for controlling a newly added service [col. 7 lines 3-8]. The self-DCM 425 is used to represent and control various (executing) various functions of the

local device [**col. 7 lines 32-35**] (wherein said aspects of said dissimilar communications devices that have been abstracted include: controlling, executing, recording, storing, discovering, and messaging).

39. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use a messaging system with a DCM in Norrell's invention to model a device to be controlled remotely over a network.

40. **Claims 16, 34, 52 and 70** are rejected under 35 U.S.C. 103(a) as being unpatentable over Norrell as modified by Eytchison as applied to **claims 1, 19, 37 and 55 respectively** above, and further in view of Ludtke.

41. The combination of Norrell and Eytchison teach a converged home gateway [**Norrell, title**] and a LAN is made up of a variety of devices [**Norrell, col. 5 lines 7-12**]. The combination does not teach one of the nodes on the network is capable of controlling other nodes on the same network. Ludtke teaches the controller node limitation absent from the teachings of the combination by disclosing a user uses an interface to access a media manager to enter functions which are to be completed using other devices on the network [**col. 2 lines 24-26**] (wherein at least one of said dissimilar communications devices includes the capability to control another of said dissimilar communications devices).

42. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use an interface to control other nodes on the LAN in Norrell's invention to set a timer for a device to perform a certain action (i.e. record a television program).

Response to Arguments

43. Argument:

Eytchison teaches the DAL and it's common communication interface operate externally from the electronic devices.

Response:

The claimed invention does not require the common interface be internal to each dissimilar device. The claimed invention requires a common interface that operates on, not in, each dissimilar device. Eytchison's invention operates on the dissimilar devices by abstracting the device functions and placing the device functions into a GUI interface. For example, presenting only appropriate DVD player (play, pause, etc) and TV (volume, mute) controls to a user when a movie on the DVD player has been activated [0036]. The Examiner views the interpretation of "operates on" as being reasonable because Eytchison's invention is performing the functions of a control device in the instant application [Specification, page 18, lines 1-15].

Conclusion

44. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey M. Rutkowski whose telephone number is (571) 270-1215. The examiner can normally be reached on Monday - Friday 7:30-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey M Rutkowski
Patent Examiner
02/19/2008

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